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and a station in Manchooria; Crozet Island and Pekin; Cape of Good Hope and Nertchinsk.

Projection 7. Kerguelen's Land and Tsitsikar; Crozet Island and Nertchinsk; Cape Town and a station west of Lake Baikal.

Projection 8. Kerguelen's Land and Nertchinsk; Cape Town and Peshawur; Repulse Bay or neighbourhood and Yokohama; Perth (Australia) and Yokohama.

Projection 9. Repulse Bay and Yokohama; Enderby Land and Nertchinsk; Crozet Island and Calcutta; Cape Town and Bombay.

Projection 10. Repulse Bay and Nertchinsk; Possession Island (near South Victoria Land) and Yokohama; Kerguelen's Land and Calcutta; Crozet Island and Peshawur; Cape Town and Teheran.

Projection 11. Possession Island and Tsitsikar; Repulse Bay and neighbourhood of Lake Baikal; Enderby Land and Calcutta; Kerguelen's Land and Madras; Crozet Island and Peshawur; Cape Town and Aden.

Projection 12. Possession Island and Nertchinsk; Enderby Land and Madras; Kerguelen's Land and Peshawur; Crozet Island and Teheran.

Projection 13. Possession Island and neighbourhood of Lake Baikal; Repulse Bay and Calcutta; a New Zealand station and Yokohama; Hobart Town and a station near the mouth of the Amoor.

From this list we see that Kerguelen's Land and Crozet Island; Peshawur and other Indian stations; and stations in Siberia, are those which give the most favourable opportunities for the application of the photographic method.

Observations of Meteors, Nov. 13–14, 1869, *at Santa Barbara, California.* Observers, G. Davidson and Mrs. E. Davidson.

Watch was kept in camp for the meteoric shower; the night beautifully clear; Moon ten days old and 4° S. Decl. I was called at $1^h\ 10^m$, up to which time 22 meteors had been seen. The diagram exhibits the numbers noted by two observers up to $3^h\ 43^m$ A.M. After that time watch was kept up for any unusual display, but the numbers gradually diminished. The total number recorded was 556 in $2^h\ 25^m$. Some of the meteors were very brilliant and left persistent trains.

"At $1^h\ 25^m$ a meteor without apparent motion suddenly appeared, and burst in the same position. It was about 2° above and to the left of the bright star in the blade of the Sickle." (S. R. Throckmorton, Jun.)

At $2^h\ 33^m$ I observed a brilliant meteor start from a point above and a little to the left of the pointers; it left a persistent train and disappeared at a point about 9° or 10° above *Polaris*

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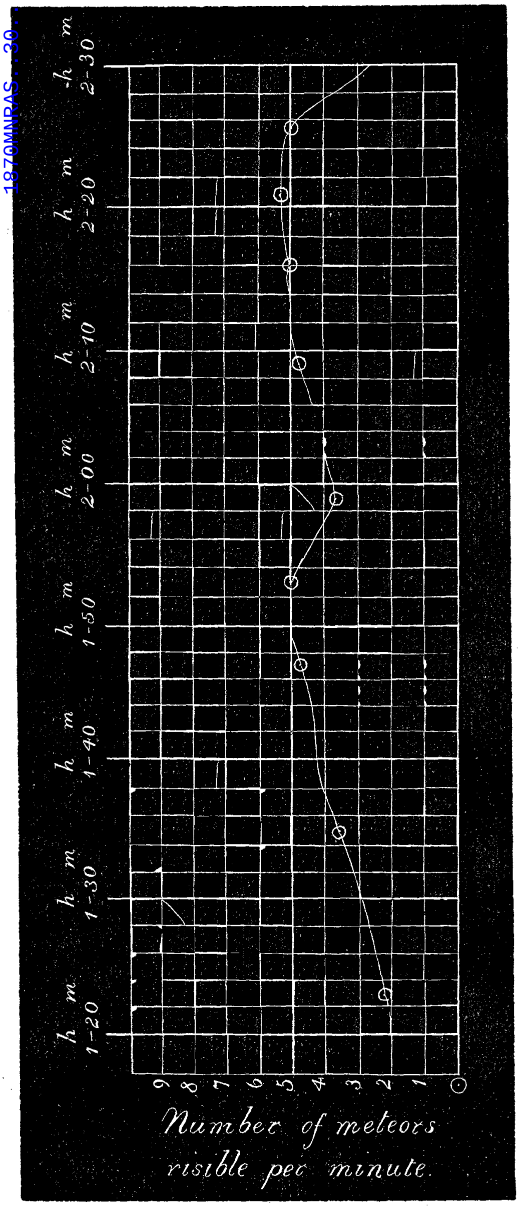
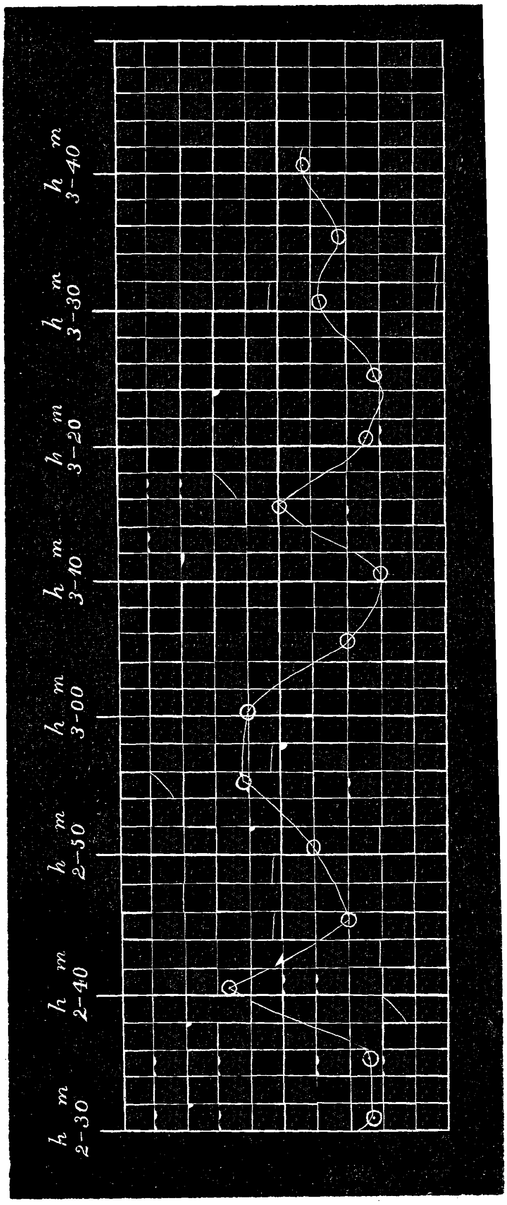


From $2^h\ 22^m$ to $2^h\ 42^m$, I was watching the persistent train of a meteor.
From $2^h\ 16^m$ to $2^h\ 55^m$, Messrs. Throckmorton and Harford saw an average of 3 per minute.



and 6° to the right. The train was 5° in length; gradually it took a wavy form ; then curved until it formed $\frac{2}{3}$ of an irregular circle , and was 3° in diameter, and $\frac{1}{2}$ a degree in width. I examined it with a good binocular, and found it not of uniform density, but having open spaces in it. It remained visible $8\frac{1}{2}$ minutes, and in that time apparently moved in a line towards the radiant point in *Leo*, over a space of 8°.

About half-a-dozen meteors were observed moving in directions towards the radiant. G.D.

Coast Survey Station, Santa Barbara, California.
Lat. 34° 24′ N., Long. $7^h\ 59^m$.

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